Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

3

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PC 00 320 H	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/EP00/03860	International filing date (*day/month/year*) 28 April 2000 (28.04.00)	Priority date (*day/month/year*) 06 May 1999 (06.05.99)
International Patent Classification (IPC) or national classification and IPC C12M 1/34		
Applicant MICRONAS GMBH		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 10 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand	Date of completion of this report
17 November 2000 (17.11.00)	09 August 2001 (09.08.2001)
Name and mailing address of the IPEA/EP Facsimile No.	Authorized officer Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP00/03860

I. Basis of the report

1. This report has been drawn on the basis of (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

☒ the international application as originally filed.

☒ the description, pages 4-18, as originally filed,
pages _____, filed with the demand,
pages 1-3,3a, filed with the letter of 13 July 2001 (13.07.2001),
pages _____, filed with the letter of _____.

☒ the claims, Nos. _____, as originally filed,
Nos. _____, as amended under Article 19,
Nos. _____, filed with the demand,
Nos. 1-25, filed with the letter of 13 July 2001 (13.07.2001),
Nos. _____, filed with the letter of _____.

☒ the drawings, sheets/fig 1/3 - 3/3, as originally filed,
sheets/fig _____, filed with the demand,
sheets/fig _____, filed with the letter of _____,
sheets/fig _____, filed with the letter of _____.

2. The amendments have resulted in the cancellation of:

☐ the description, pages _____
☐ the claims, Nos. _____
☐ the drawings, sheets/fig _____

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

4. Additional observations, if necessary:

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International application No.
[redacted]T/EP 00/03860

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-25	YES
	Claims		NO
Inventive step (IS)	Claims	1-25	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-25	YES
	Claims		NO

2. Citations and explanations

1.) This report makes reference to the following documents:

D1: FR-A2 690 926
D2: WO-A-90/04645
D3: EP-A-0 608 153.

2.) For the following reasons the subject matter of Claims 1-25 can be considered novel and inventive within the meaning of PCT Article 33(2) and (3).

D1 (closest prior art) discloses a device wherein a bioreactor is coupled to a measurement device for determining certain parameters of the reaction mixture. The effective volume of the reactor is adjusted as desired by means of a movable separating body (plunger) (page 2, lines 1-26; page 4, lines 8-21; page 6, lines 3-6; Figures 1 & 3).

In the device as per Claim 1 (and Claims 2-25) the separating body divides the total volume of the container into two spaces situated above each other,

namely a reaction chamber having a small volume and a reservoir chamber, the two chambers being connected such that a liquid is able to circulate.

The separating body itself protects the reaction chamber against contamination, the presence of flow channels in the separating bodies permitting the simple addition to, or reception of culture medium or active substances in, the reaction chamber. Despite its small volume the reaction chamber is also protected from excessive evaporation because it is linked with the reservoir chamber via the flow channel.

The devices of D1 to D3 do not have a reservoir chamber which is separated from a reaction chamber by a separating body and from which culture medium can be transferred if necessary into the reaction chamber for regeneration purposes by moving the separating body into a corresponding position. In D1 the separating body serves only to delimit the receiving volume of the reaction chamber (the "reservoir chamber" is filled with air). The separating body as per D3 (see column 3, lines 13-58 and column 4, lines 1-48; Figure 1) serves as a "switch" for the addition of reagents to the reaction chamber. The device as per D2 (see page 8, lines 34-36; page 9, lines 1-34; Figures 1-2) is a flow cell in which the reaction chamber is directly linked with the outside by the flow channels.